

**Assignment -1**  
Internet of Things

Assignment Date	19September 2022
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Maximum Marks	2 Marks

**Question-1:**

Smart Home

**Solution:**

```
#include<Servo.h>

Servo s;

Int t=2;

Int e=3;

Int l=11;

Void setup()

{

pinMode(t,OUTPUT);

pinMode(e,INPUT);

pinMode(l,OUTPUT);

pinMode(13,OUTPUT);

pinMode(4,INPUT);

s.attach(5);

Serial.begin(9600);

}

Void loop()

{

//ultrasonic sensor used to indicatate BULB glowing and Door open(servo motor)

digitalWrite(t,1); digitalWrite(t,0); delayMicroseconds(10); digitalWrite(t,0); float

dur=pulseIn(e,1);

float dis=(dur*0.0343)/2;

Serial.print("distance:");
```

```

Serial.println(dis);
If(dis>150){
digitalWrite(l,0);
s.write(180);
} Else{
digitalWrite(l,1);
s.write(0);
}

//Temprature sensor
Double a= analogRead(A0);
Double t= (((a/1024)*5)-0.5)*100;
Serial.print("temprature value:");
Serial.println(t);
Delay(1000); If(t>100)
digitalWrite(13,1);
else
digitalWrite(13,0);
delay(1000); //PIR
sensor
digitalWrite(13,0);
int a1=digitalRead(4);
Serial.println(a);
If(a1==1){ Serial.println("motion
detected:"); digitalWrite(13,1);
}
Delay(1000);
}

```

**CIRCUIT DIAGRAM:**

